



Elastic Energy

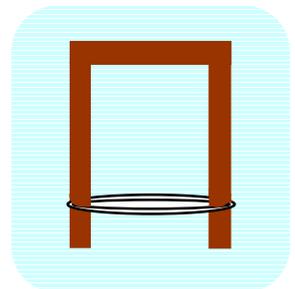
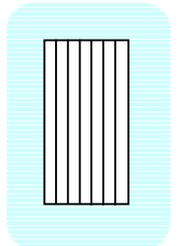
In this experiment we are going to investigate the power of an elastic band

You will need

- Elastic bands
- Margarine tub
- Weights or some sand
- Stool or a chair
- Tape measure
- Ruler
- Pencil
- A4 Paper
- Masking tape

Method

1. Mark the A4 paper at 2cm intervals along the short sides of the paper. Draw lines across the paper so it looks like this.
2. Tape the paper to the floor.
3. Put the elastic band under the bottom of the front stool legs so that it is stretched across the 2 legs.
4. Place the stool so the stretched elastic band lines up with the edge of the paper.
5. Place some weights into the margarine tub (these are just to stop the margarine tub flying when you catapult it, you will only need about 100g).
6. Place the margarine tub against the elastic band.
7. Pull back the margarine tub against the elastic band until you reach the first marking on the paper, let go and watch it travel.
8. Measure the distance the tub traveled. Record the distance.
9. Repeat the experiment, this time pulling back to the second mark on the paper.
10. Keep repeating the experiment each time pulling the tub back to the next mark.
11. Plot a graph of your results.



Things to think about

- What happens if you use a thicker or thinner elastic band?
- If you change the weight in the tub what will happen?
- If you keep pulling the tub back to the same point does the tub travel the same distance each time?
- What happens if you use more than one elastic band?